

[67190/984046]

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of: P. BOUJRA et al.

For ELECTRONIC TRIPPING
DEVICE COMPRISING
CONTROL AND DISPLAY
ELEMENTS

X
: Confirmation No.: 3756

: Examiner: Zeev Kitov

: Art Unit: 2836

Filed: February 1, 2001

Serial No.: 09/646,089

Customer No.: 26646

X

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Michelle Camiaux (Reg. No. 36,098)

APPEAL BRIEF TRANSMITTAL

SIR:

Transmitted herewith for filing in the above-identified patent application, please find an Appeal Brief pursuant to 37 C.F.R. § 1.192(a).

Please charge the Appeal Brief fee of \$500.00, and any other fees that may be required in connection with this communication to the deposit account of **Kenyon & Kenyon**, deposit account number **11-0600**.

Applicant hereby requests a two-month extension of time for submitting the Appeal Brief. The extended period for submitting the Appeal Brief expires on July 2, 2005. Please charge the \$450.00 extension fee and any other fee that may be required to Deposit Account No. 11-0600. A duplicate of this Transmittal is enclosed

Respectfully submitted,

Dated: 29 June 2005

By: [Signature]

Richard L. Mayer
Registration No. 22,490

(n no 36098)

KENYON & KENYON
One Broadway
New York, NY 10004
(212) 425-7200
CUSTOMER NO. 26646



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Application. No. : 09/646,089
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For : ELECTRONIC TRIPPING DEVICE COMPRISING
CONTROL AND DISPLAY ELEMENTS

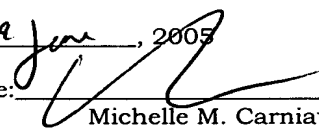
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Date: 29 June, 2005

Reg. No. 36,048

Signature: 
Michelle M. Carniaux

**APPELLANTS' APPEAL BRIEF
UNDER 37 C.F.R. § 1.192**

S I R :

Applicants filed a Notice of Appeal dated March 2, 2005, appealing from the Final Office Action dated September 10, 2004, in which claims 11-22 of the above-identified application were finally rejected. This Brief is submitted by Applicants in support of their appeal. An appendix listing all of the claims is attached.

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I. REAL PARTY IN INTEREST

The real party in interest in the present appeal is Siemens Aktiengesellschaft, Wittelsbacherplatz 2, D-80333 München, Federal Republic of Germany. Siemens is the assignee of the entire right, title and interest in the present application.

II. RELATED APPEALS AND INTERFERENCES

No appeal or interference which will directly affect, or be directly affected by, or have a bearing on the Board's decision in the pending appeal is known to exist to the undersigned attorney or is believed by the undersigned attorney to be known to exist to Applicants.

III. STATUS OF CLAIMS

Claims 11-22 are pending in this application and under consideration in this Appeal. Among the claims presently on appeal, claims 19 and 21 are independent, with claims 11-18 and 20 ultimately depending from claim 19, and claim 22 depending from claim 21.

IV. STATUS OF AMENDMENTS

No amendment has been made subsequent to the final Office Action mailed on September 10, 2004.

V. SUMMARY OF CLAIMED SUBJECT MATTER

There are two independent claims involved in this appeal, claims 19 and 21.

Claim 19 relates to a device for a low-voltage circuit breaker. This device includes an electronic tripping device having an operating face (e.g., Fig. 1, element 1; Specification, p. 6, lines 1-3), and an adjusting circuit incorporated in the tripping device. The device further includes adjusting elements (e.g., Fig. 1, elements 14-16; Specification, p. 8, lines 18-20) and display elements (e.g., Fig. 1, elements 2-9; Specification, p. 6, lines 35-36) for

tripping parameters, also incorporated in the tripping device and arranged on the operating face thereof. The tripping parameters include, for example, tripping current and corresponding time delay in case of overload. See, e.g., Specification, p. 5, line 37 - p. 6, line 15. In accordance with claim 19, the adjusting elements are key switches (e.g., Fig. 1, elements 14-16) and the display elements are LCD elements (e.g., Fig. 1, element 2-9) See, e.g., Specification, p. 6, line 35-36; p. 8, lines 18-20. The LCD elements include a different respective LCD element for each tripping parameter adjusted. See, e.g., Fig. 1, elements 2-9; Specification, p. 8, lines 2-16.

Claim 21 relates to a device for a low-voltage circuit breaker. This device includes an electronic tripping device having an operating face (e.g., Fig. 1, element 1; Specification, p. 6, lines 1-3), and an adjusting circuit incorporated in the tripping device. The device further includes adjusting elements (e.g., Fig. 1, elements 14-16; Specification, p. 8, lines 18-20) and display elements (e.g., Fig. 1, elements 2-9; Specification, p. 6, lines 35-36) for tripping parameters groups, also incorporated in the tripping device and arranged on the operating face thereof. The tripping parameters groups include at least one of i) long-time delay parameter group (e.g., Specification, p. 7, lines 24-25), ii) instantaneous tripping parameter group (e.g., Specification, p. 7, line 25), iii) short-time delay tripping parameter group (e.g., Specification, p. 7, line 25), and iv) ground-fault tripping parameter group (e.g., Specification, p. 7, line 26). In accordance with claim 21, the adjusting elements are key switches (e.g., Fig. 1, elements 14-16) and the display elements are LCD elements (e.g., Fig. 1, element 2-9) See, e.g., Specification, p. 6, line 35-36; p. 8, lines 18-20. The LCD elements include a different respective LCD element for each tripping parameter adjusted. See, e.g., Fig. 1, elements 2-9; Specification, p. 8, lines 2-16.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The following grounds of rejection are presented for review on appeal in this case:

(A) Whether claims 11, 13, 14 and 19-22 are rendered obvious under 35 U.S.C. § 103(a) by U.S. Patent No. 5,224,011 to Yalla et al. (the “Yalla patent”) in view of U.S. Patent No. 4,429,340 to Howell (the “Howell patent”).

(B) Whether claim 12 is rendered obvious under 35 U.S.C. § 103(a) by the Yalla patent in view of the Howell patent and further in view of U.S. Patent No. 5,852,543 to Dvorak et al. (the “Dvorak patent”).

(C) Whether claims 15 and 16 are rendered obvious under 35 U.S.C. § 103(a) by the Yalla patent in view of the Howell patent and further in view of U.S. Patent No. 5,038,246 to Durivage, III (the “Durivage patent”).

(D) Whether claim 17 is rendered obvious under 35 U.S.C. § 103(a) by the Yalla patent in view of the Howell patent and further in view of the Durivage patent and the case of *In re Stevens*.

(E) Whether claim 18 is rendered obvious under 35 U.S.C. § 103(a) by the Yalla patent in view of the Howell patent and further in view of an LCD element from Kent.

VII. ARGUMENTS

A) Rejection of claims 11, 13, 14 and 19-22

Claims 11, 13, 14 and 19-22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Yalla patent in view of the Howell patent.

To sustain an obviousness rejection, the Patent Office has the burden of showing that there is some suggestion or motivation to modify or combine reference teachings. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). In particular, the prior art must suggest the desirability of the combination to satisfy this burden. *See In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990). Moreover, the teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed.

Cir. 1991). In addition, the prior art reference(s) must teach or suggest all of the claim limitations. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974).

Independent claim 19 recites a device for a low-voltage circuit breaker that includes, *inter alia*, adjusting elements and display elements for tripping parameters, the adjusting elements and the display elements being incorporated in the tripping device, the adjusting elements and the display elements cooperating with the adjusting circuit and arranged at the operating face of the tripping device, the tripping parameters including tripping current and corresponding time delay in case of overload. Claim 19 also recites that the adjusting elements are key switches and the display elements are LCD elements to display adjustments selected via the key switches, and that the LCD elements include a different respective LCD element for each of the tripping parameters to be adjusted.

As the specification of the present invention discusses, among the advantages provided by the present invention are: i) an easily readable LCD display in place of the small scales which are hard to recognize and ii) LCD elements that can *permanently* present the information to be displayed without supply of energy, subsequent to feeding the information to the display. See Specification, page 10, l. 3-12 (emphasis added).

It is submitted that the combination of the Yalla and Howell patents fail to teach or suggest the features of claim 19 and also, significantly, fail to provide the advantages associated with the present invention. In the Final Office Action, the Examiner acknowledges that the Yalla patent “discloses a single display element rather than different display element[s] for each of the parameters,” but alleges that the Howell patent cures the deficiency of the Yalla patent. By this acknowledgement, the Examiner admits that the Yalla patent, by not providing separate display elements for the different parameters cannot provide the advantages of an easily readable LCD display that can permanently display tripping parameter information.

Contrary to the assertions of the Final Office Action, the Howell reference does not cure these deficiencies of the Yalla patent. The Howell patent discloses two LED bargraphs that in each case display a relationship between a measured quantity and an adjustable quantity (the relationship between a

largest phase current and an adjustable pickup level and between an elapsed time and an adjustable long-time delay interval, respectively). See the Howell patent, col. 5. These LED bargraphs provide a ***diagnostic function***, allowing maintenance personnel to quickly determine the load current as a percentage of a tripping (pickup) current, and if the tripping current is surpassed, to determine the amount of time left before a tripping procedure is activated. This function is diagnostic in that it pertains to the actual real-time state of the circuit breaker and not to the tripping settings *per se*. Thus, the functions of the bargraphs according to the Howell patent are quite unrelated to the functions of the bargraphs of the present invention, which allow maintenance personnel to easily determine (and set) *the tripping parameters* of the circuit breaker.

In light of these manifest differences between the teachings of the Howell patent and the present invention, there is no suggestion as to the desirability of the combination of the Yalla and Howell patents to arrive at the subject matter of the claimed invention. In summary, the Yalla reference discloses a menu operated panel in which the various parameters are accessed by scrolling and then displayed one at a time. See the Yalla patent, cols. 26-27. The Howell reference does not disclose displaying the tripping parameters themselves, but only a relationship between real time current/elapsed time values versus preset tripping parameters. There is, therefore, no teaching or suggestion the cited references, taken alone or combined, *to display a plurality of tripping parameters in an easily readable and permanent manner*. Additionally, there is no suggestion as to the desirability of achieving the aforementioned advantages provided by the claimed invention.

For at least the foregoing reasons, it is submitted that the combination of the Yalla and Howell patents fails to render obvious the subject matter of claim 19 and its dependent claims 11, 13, 14 and 20.

As claim 21 recites features analogous to claim 19, it is submitted that the combination of the Yalla and Howell patents also fails to render obvious the subject matter of claim 21 and its dependent claim 22.

Reversal of the final rejection of claims 11, 13, 14 and 19-22 under 35 U.S.C. § 103(a) is therefore respectfully requested.

B) Rejection of claim 12

Claim 12 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over the Yalla patent in view of the Howell patent and in further view of the Dvorak patent.

Claim 12 depends from and incorporates the features of independent claim 19. The Dvorak patent discloses a portable programming device for communicating tripping characteristics with a circuit breaker. See Dvorak patent, Abstract. Like the Yalla patent, the Dvorak patent does not teach or suggest a plurality of display elements for each of the tripping parameters. Accordingly, the Dvorak patent fails to cure the deficiencies of the Yalla and Howell references with respect to independent claim 19, as discussed above. *A fortiori*, the combination of the Yalla, Howell and Dvorak patents fails to render obvious claim 12, which depends from claim 19.

Reversal of the final rejection of claim 12 under 35 U.S.C. § 103(a) is therefore respectfully requested.

C) Rejection of claims 15 and 16

Claims 15 and 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Yalla patent in view of the Howell patent and in further view of the Durivage patent.

Claims 15 and 16 depend from and incorporates the features of independent claim 19. The Durivage patent discloses a tripping system having a local display that includes segments that illuminate when a trip condition has been reached (a logical high level). See Durivage, col. 5, l. 60-66. However, the tripping parameters themselves are not displayed. Furthermore, the bar displays disclosed in the Durivage patent indicate the rated trip current and also do not pertain to tripping parameters *per se*. Accordingly, like the other cited references, the Durivage patent does not teach or suggest a plurality of display elements for each of the tripping parameters. Accordingly, the Durivage patent fails to cure the deficiencies of the Yalla and Howell references with respect to independent claim 19, as discussed above. *A fortiori*, the combination

of the Yalla, Howell and Durivage patents fails to render obvious claims 15 and 16, which depend from claim 19.

Reversal of the final rejection of claims 15 and 16 under 35 U.S.C. § 103(a) is therefore respectfully requested.

D) Rejection of claim 17

Claim 17 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over the Yalla patent in view of the Howell patent in further view of the Durivage patent and the case *In re Stevens*.

As discussed above with respect to claims 15 and 16, the Durivage patent fails to cure the deficiencies of the Yalla and Howell patents. As the case *In re Stevens* does not pertain to the features of the claimed invention that the cited references lack and do not suggest, it is submitted that claim 17 is not rendered obvious by the cited references in view of *In re Stevens*.

Reversal of the final rejection of claim 17 under 35 U.S.C. § 103(a) is therefore respectfully requested.

E) Rejection of claim 18

Claim 18 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over the Yalla patent in view of the Howell patent and in further view of an LCD element from Kent.

Claim 18 depends from and incorporates the features independent claim 19. An LCD element *per se* does not cure the deficiencies of the Yalla and Howell patents discussed above with respect to claim 19. Accordingly, it is submitted that the combination of the Yalla and Howell patents with an LCD element does not render obvious the features of claim 18.

Reversal of the final rejection of claim 18 under 35 U.S.C. § 103(a) is therefore respectfully requested.

IX. CONCLUSION

For the foregoing reasons, it is respectfully submitted that the final rejection of claims 11-22 should be reversed.

Respectfully submitted,

KENYON & KENYON

 (Res No 36098)

Dated: 2^a Jan, 2005

By: 

Richard L. Mayer
Reg. No. 22,490

CUSTOMER NO. 26646
PATENT & TRADEMARK OFFICE



CLAIMS APPENDIX

11. The device according to claim 19, wherein only one key set composed of three keys is provided as the adjusting elements for all LCD elements together.
12. The device according to claim 19, wherein a first key switch of the key switches selects a desired entry field, a second key switch of the key switches provides calibrations, and a third key switch of the key switches activates display fields in an absence of auxiliary power.
13. The device according to claim 19, wherein the display elements are bar displays.
14. The device according to claim 19, wherein the display elements are numeric displays.
15. The device according to claim 13, wherein a scale is arranged next to the bar displays.
16. The device according to claim 15, wherein the bar displays move along the scale as a narrow line according to a value to be displayed.
17. The device according to claim 15, wherein the bar displays have differing heights according to a parameter value to be displayed, an upper end of the bar indicating a value to be adjusted at the scale.
18. The device according to claim 19, wherein the LCD elements permanently present information to be displayed without supply of energy, subsequent to feeding the information to the LCD elements.
19. A device for a low-voltage circuit breaker, comprising:
 - an electronic tripping device having an operating face;
 - an adjusting circuit incorporated in the tripping device, the adjusting circuit configured to derive an internal signal for the tripping device; and

adjusting elements and display elements for tripping parameters, the adjusting elements and the display elements being incorporated in the tripping device, the adjusting elements and the display elements cooperating with the adjusting circuit and arranged at the operating face of the tripping device, the tripping parameters including tripping current and corresponding time delay in case of overload;

wherein the adjusting elements are key switches and the display elements are LCD elements to display adjustments selected via the key switches, and

wherein the LCD elements include a different respective LCD element for each of the tripping parameters to be adjusted.

20. The device according to claim 19, wherein the LCD elements are configured to display the tripping parameters simultaneously relative to one another.

21. An device for a low-voltage circuit breaker, comprising:

an electronic tripping device having an operating face;

an adjusting circuit incorporated in the tripping device, the adjusting circuit configured to derive an internal signal for the tripping device; and

adjusting elements and display elements for at least one of the following tripping parameters groups: i) long-time-delay tripping parameter group, ii) instantaneous tripping parameter group, iii) short-time-delay tripping parameter group, and iv) ground-fault tripping parameter group; the adjusting elements and the display elements being incorporated in the tripping device, the adjusting elements and the display elements cooperating with the adjusting circuit and arranged at the operating face of the tripping device, the at least one tripping parameters group including tripping current as a first tripping parameter and corresponding time delay in case of overload as a second tripping parameter;

wherein the adjusting elements are key switches and the display elements are LCD elements to display adjustments selected via the key switches, and

wherein the LCD elements include a different respective LCD element for each of the tripping parameters to be adjusted.

22. The device according to claim 21, wherein the LCD elements are configured to simultaneously display the first tripping parameter and the second tripping parameter.